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**Sent:** 5/10/2021 11:33:18 PM  
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**Subject:** GE News & Science

FYI

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**From:** Cournoyer, Patrick <Patrick.Cournoyer@fda.hhs.gov>  
**Sent:** Friday, May 07, 2021 8:25 PM  
**To:**  
**Subject:** GE News & Science

NEWS

## **European Commission study on “New Genomic Techniques” (NGTs) finds existing regulatory framework for GMOs “not fit for purpose for some NGTs and their products”**

- In December 2019, the EU Council requested a report on genome editing from the European Commission by April 2021
- The report was intended to address practical questions raised by the European Court of Justice ruling that plants with site-directed mutations are subject to regulation in the EU as GMOs
- The report calls for follow-up to confirm whether legislative changes are needed, and if so, what the changes should be
- The Commission says it will aim to take policy steps to ensure proportionate regulatory oversight for site-directed mutants and cisgenic plants

*Reuters:* [EU calls for rethink of GMO rules for gene-edited crops](#)

*European Commission:* [EC study on new genomic techniques](#)

## **GE mosquito releases begin in the Florida Keys**

- 144,000 GE male mosquitoes from the firm Oxitec will be released in the Keys in the coming weeks, followed by a second phase with releases of nearly 20M mosquitoes
- This is the first large-scale release of GE mosquitoes United States
- The mosquitoes are intended to suppress the population of *Aedes aegypti*, which is the primary vector for Zika, Chikungunya, and Dengue

*Nature:* [First genetically modified mosquitoes released in the United States](#)

## **Health Canada opens public comment period on proposed new guidance for Novel Food Regulations related to genome editing**

- The agency is seeking feedback through May 24 on two new guidance documents, one addressing foods from genome edited plants and one addressing retransformants of previously assessed GE plants
- The guidance highlights, “which foods from products of plant breeding do not require pre-market notification as Novel Foods”
- Health Canada is proposing to expand its existing listing of non-novel food determinations by including non-novel gene-edited plants
- The documents are available upon e-mail request

*Health Canada:* [Summary: Proposed new guidance pieces for the Novel Foods Regulation, focused on plant breeding](#)

*Health Canada:* [Consultation: Proposed new guidance for Novel Food Regulations focused on plant breeding](#)

*Western Producer:* [Gene edited crops are safe: Health Canada](#)

## **WIRED reports on efforts to develop animal-free cheese using biotechnology**

- Several companies are looking to replicate dairy products using proteins produced by fermentation in recombinant microorganisms
- The reporting tells the origin story of the firm Perfect Day, which has amassed a total of \$360M in funding
- Other players include New Culture, TurtleTree Labs, and Stockeld Dreamery

*WIRED:* [The quest to make genuinely cheesy animal-free cheese](#)

## **Nature Biotechnology reports on the FDA approval of $\alpha$ -Gal pigs and what it portends for xenotransplantation**

- “Ricardo Carvajal, an expert in food law and biotechnology at Hyman, Phelps & McNamara in Washington, DC, sees a willing partner in the FDA’s Center for Veterinary Medicine to move the field forward”

*Nature Biotechnology:* [First GM pigs for allergies. Could xenotransplants be next?](#)

## **FDA drops appeal of court order to reconsider approval of GE AquAdvantage salmon**

- On November 5, 2020, “FDA was required to review its decision, and per the mandates of ESA, consult with the National Marine Fisheries Service (NMFS) and the Fish and Wildlife Service (FWS) if it determined that the approval ‘may affect’ an endangered species”

*Bloomberg Law:* [FDA Drops Appeal to Required Redo of ‘Frankenfish’ Salmon Review](#)

*National Law Review:* [FDA Appeals Order Rejecting GE Salmon Approval](#)

## **Court denies Center for Food Safety's petition seeking to vacate FDA's color additive approval for recombinant soy leghemoglobin**

- The protein contributes to the color and flavor of Impossible Foods' plant-based burgers
- Center for Food Safety argued that longer-term animal studies are needed to assure safety

*Food Navigator:* [Impossible Foods applauds 9th Circuit ruling over safety of its heme, slams 'anti-science, anti-GMO activist group' for 'spreading lies'](#)

## **CIMMYT preparing to distribute many new zinc-biofortified wheat varieties developed through conventional breeding**

- CIMMYT, "expects the newly-developed high-zinc wheat to make up at least 80% of varieties distributed worldwide over the next ten years, up from about 9% currently."
- The reporting also discusses new fall armyworm resistant corn varieties developed by CIMMYT

*Reuters:* [EXCLUSIVE New zinc-fortified wheat set for global expansion to combat malnutrition](#)

## **Brazil approves Oxitec's GE fall armyworm**

- The technology is intended to suppress populations of the agricultural pest

*Cornell Alliance for Science:* [Brazil approves environmentally 'Friendly' GM tool for controlling fall armyworm](#)

## **Agriculture Secretary Vilsack says Mexico's GE corn ban doesn't currently apply to animal feed**

- In January Mexico announced a ban on GE corn that would gradually expand to include animal feed in three years
- Vilsack says conversations with Mexico about the ban will continue

*Bloomberg:* [Vilsack Says Mexico GMO Ban Plan Doesn't Currently Cover Feed](#)

## **Mexican court sides with Bayer in challenge to Mexico's plan to prohibit glyphosate**

- The ruling was issued April 14<sup>th</sup> and argues that banning glyphosate risks negatively, "affecting agricultural production and as a result, food security and sovereignty."

*Reuters:* [Mexican judge gives temporary win to Bayer over glyphosate ban](#)

## **In ongoing trade conflict with the US, India placed stiff tariffs on US apples and is requiring a non-GMO certificate**

- Washington State reportedly, "worked quickly to create a non-GMO label for apples everyone knows aren't genetically modified"

*Modern Farmer:* [A Weird Trade War Rages Between India and the Pacific Northwest Over Apples](#)

## **India increases price of GE cotton seed by 5%**

- 90% of cotton acreage in India is planted with GE seed from Monsanto, though India greatly decreased royalties paid to the company last year

*Reuters:* [India raises genetically modified cotton seed prices by 5%](#)

## **India's Genetic Engineering Appraisal Committee (GEAC) declines to authorize GE eggplant trials without support from state governments**

- The GEAC has asked applicants to obtain a "No Objection Certificate" from states before beginning a field trial
- Anti-GE groups have pressured states to oppose field trials

*Times of India:* [Govt junks plan to allow trials of Bt brinjal, other transgenic crops](#)

## **Despite South Korea recently loosening some GE food controls, some observers predict stricter measures in the future**

- Observers see increasing public scrutiny of GE food in South Korea as the population is becoming more affluent

*Food Navigator:* [Stricter GMO governance expected in South Korea as public sentiment remains hostile](#)

## **Observers say many food companies are not prepared for bioengineered food disclosure becoming mandatory on January 1, 2022**

- The reporting discusses if and how firms are preparing to comply

*Food Navigator:* 'The biggest challenge is communication through the supply chain...' Many stakeholders not yet up to speed on National Bioengineered Food Disclosure Standard, say experts

#### **Seafood wholesaler Samuels & Sons says it will supply AquaAdvantage salmon**

- Many retailers and foodservice companies have said they will not carry the GE salmon

*Seafood Source:* Samuels & Sons announces plan to sell AquaBounty GE salmon

#### **Congressional Research Service issues report on agricultural biotechnology**

- CRS issued the report on March 29, 2021
- The report concludes with a list of issues of potential interest to Congress, including new technologies, labeling, trade, and the environment

*CRS:* Agricultural Biotechnology: Overview, Regulation, and Selected Policy Issues

#### **Dhaka Tribune reports on efforts to develop GE eggplant resistant to both fruit and shoot borer and bacterial wilt**

*Dhaka Tribune:* Breeders developing doubly resistant brinjal varieties

#### **USDA deregulates Simplot Z6 potato by extension**

- The potato was engineered for late blight protection, low acrylamide potential, lowered reducing sugars, and reduced black spot

*Federal Register:* J.R. Simplot Co.: Determination of Nonregulated Status for Z6 Potatoes With Late Blight Protection, Low Acrylamide Potential, Lowered Reducing Sugars, and Reduced Black Spot

*Seed World:* USDA Announces Deregulation Extension of Potato Developed Using Genetic Engineering

## **COMMENTARY**

#### **Columbia University post-doc Sarah Garland argues that regulators must precisely define technologies for effective regulation**

- "Scientific government agencies like the USDA should create new terms that describe the types of advancements we are witnessing in the pipeline instead of simply ignoring them until market pressures inevitably force a regulatory decision."
- "...we cannot accept lack of clarity and foresight in our legal documents that govern innovation."

*Slate:* USDA Definitions Around Biotechnology Need Some Crucial Updating

#### **Georgetown professor Marc L. Busch criticizes Mexico's restrictions on glyphosate and GE corn**

- Busch urges the US to file a trade dispute under the U.S.-Mexico-Canada Agreement (USMCA) and urges WTO reform

*The Hill:* US should challenge Mexico's ban on glyphosate and genetically-modified corn at the WTO

#### **Information Technology and Innovation Foundation fellow Val Giddings says the US must modernize its regulation of biotechnology, and the EPA and FDA are "obstacles to progress"**

- Giddings says FDA's approach to regulating biotech animals, "has galvanized major segments of agricultural industry to demand that jurisdiction for gene-edited animals be shifted from FDA to USDA"
- Giddings urges EPA to broaden its proposed exemptions from its regulation of plant incorporated protectants

*ITIF:* How the Biden Administration Can Accelerate Prosperity by Fixing Agricultural-Biotech Regulations

#### **CSPI's Gregory Jaffe and NC State's Jennifer Kuzma analyze and opine on the National Bioengineered Food Disclosure Act**

- Jaffe and Kuzma "provide recommendations for regulatory revisions and consumer education that are necessary to make the law useful to consumers"

*FDLI:* New Bioengineered (aka GM) Food Disclosure Law: Useful Information or Consumer Confusion?

## **SCIENCE**

**Whiteflies obtained a gene enabling detoxification of phenolic glycosides from plants via horizontal gene transfer**

- This is the first known horizontal transfer of a gene from a plant to an insect
- Plants produce phenolic glycosides to defend themselves against pests
- Whiteflies acquired a phenolic glucoside malonyltransferase gene *BtPMT1* from plants
- Whiteflies died when they fed on tomatoes engineered to express double stranded RNA shutting down expression of the insect's detoxification gene

*Cell*: [Whitefly hijacks a plant detoxification gene that neutralizes plant toxins](#)

*The Atlantic*: [A Pesky Insect Took an Evolutionary Shortcut](#)

*Nature (news)*: [First known gene transfer from plant to insect identified](#)

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